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Turner et al.

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(54) **NUCLEIC ACID SEQUENCE ANALYSIS**

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See application file for complete search history.

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(57) **ABSTRACT**

Methods, devices, and systems for performing intermittent detection during analytical reactions are provided. Such methods facilitate collection of reaction data from disparate reaction times. Further, such methods are useful for reducing photo-induced damage of one or more reactants in an illuminated analytical reaction at a given reaction time. In preferred embodiments, the reaction mixture is subjected to at least one illuminated and non-illuminated period and allowed to proceed such that the time in which the reaction mixture is illuminated is less than a photo-induced damage threshold period.

17 Claims, 26 Drawing Sheets

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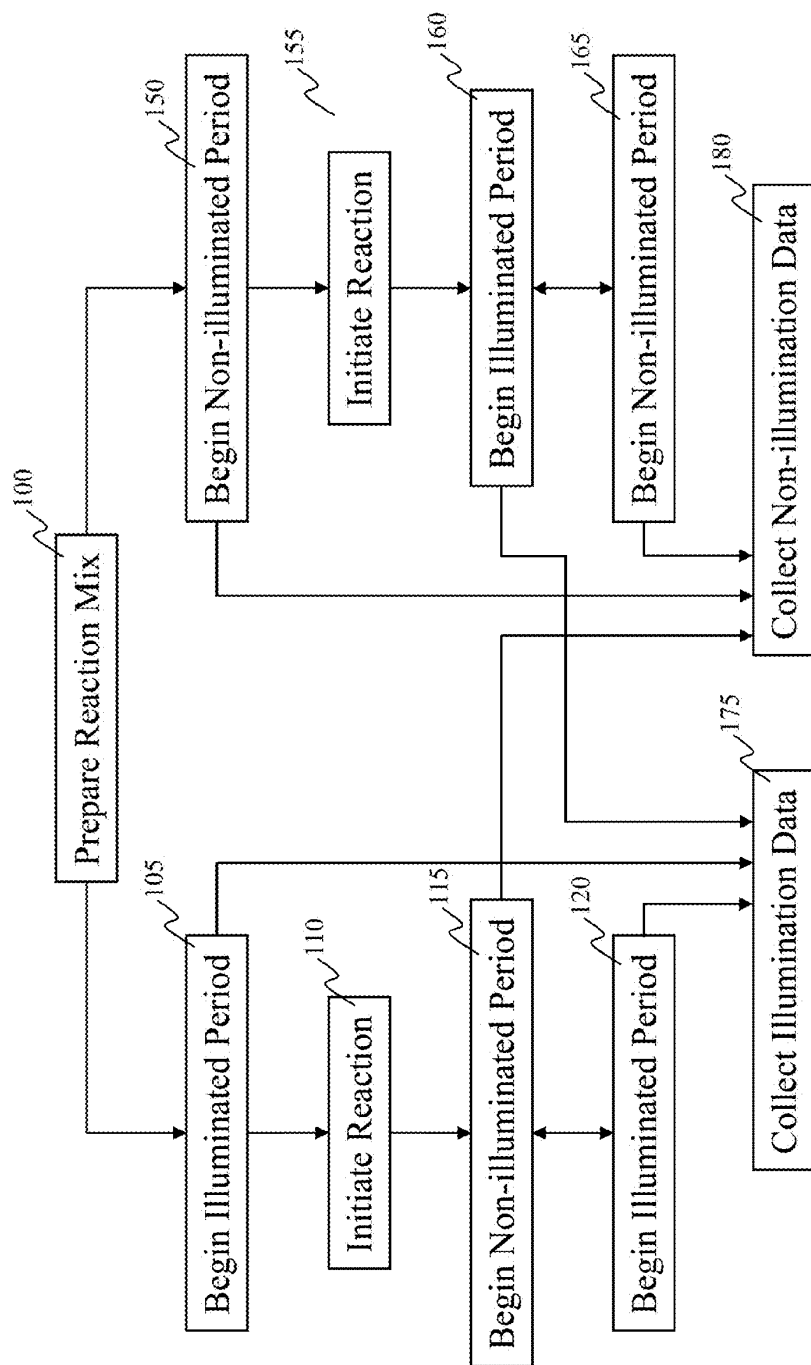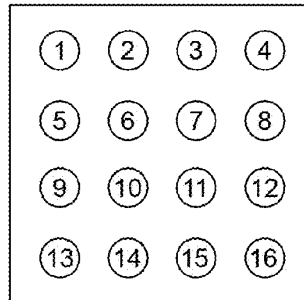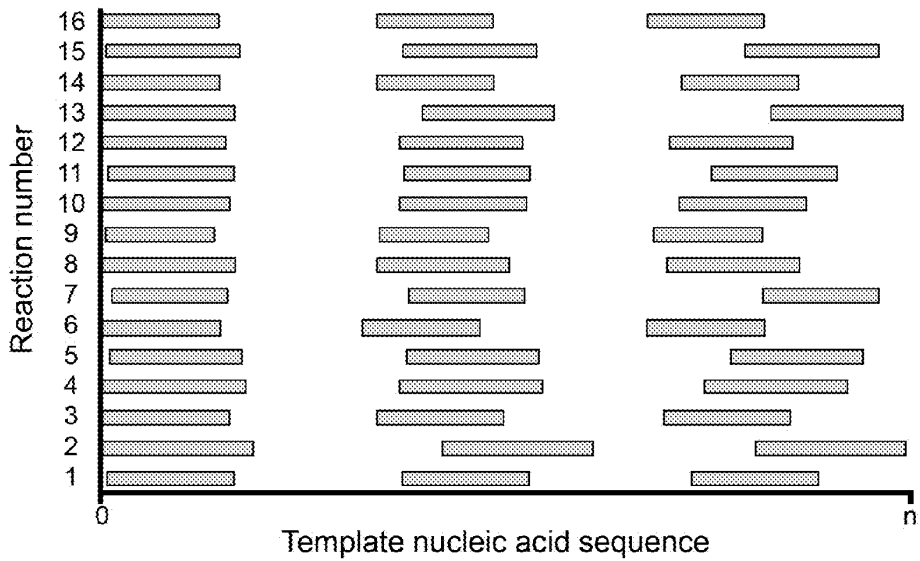
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Figure 1

Figure 2A

Figure 2B

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